

## **Preliminary Information**

PIP5338A Vehicle Vibration Diagnosis and TAC Requests For Assistance With Vibration Related Complaints

## Models

Brand:	Model:	Model Years:	VIN:		Engino	Transmissions
			from	to	Engine:	Transmissions:
All	All	2000 - 2017	All	All	All	All

The following diagnosis might be helpful if the vehicle exhibits the symptom(s) described in this Pl.

## **Condition / Concern**

Customer vibration complaints are one of the most challenging complaints to accurately diagnose and repair. To be effective in diagnosis the Pico Oscilloscope Diagnostic Kit with NVH (P/N 733-CH-51450) was sent to all US and Canadian dealers. This is an essential tool and should be maintained in proper working order at all times. There are several preliminary information (PI) documents and Technical Service Bulletins (TSB) in Service Information (SI) that address vibrations on specific models and model years vehicles and should be used accordingly. There are also several generic documents either TSB or PI that also should be used.

Examples: 09-00-91-001B is specific to 08-09 CTS models where there is a new part that can be used as needed.

12-03-10-001B is generic just to make dealers aware of the possibility of tire to rim orientation and tire slipping on the rim.

Diagnosis and repair of vibrations can be compared to a check engine light. We wouldn't attempt to repair the CEL without knowing the DTC stored, same can be said for vibrations. Without knowing the frequency we are just spinning our wheels in attempting to repair.

## **Recommendations / Instructions**

In an attempt to better assist dealers and get vehicles returned to customers, repaired right the first time, GM TAC will require any calls requesting assistance for vehicle vibration complaints to have a Pico file sent in prior to calling TAC. Anyone calling without following the following process will be given a case number and instructed to call back when process has been followed.

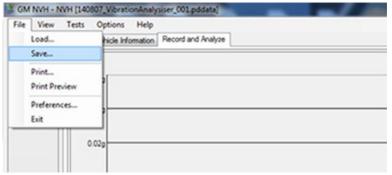
- 1: Drive the vehicle to verify condition AND record a Pico data file of the concern. Save the file to computer for possible use later.
- 2: Review that Pico file and use that information to assist in determining root cause or component.
- 3: Repair the vehicle using Pico information along with any published information relevant to the vibration frequency observed.
- 4: If the repair attempt made the concern better but not eliminated or had no affect at all, and are requesting assistance from TAC record another Pico file and save it to the computer.
- 5: Compose an e-mail to TACSNAPSHOT@gm.com in the U.S. and <u>TACSNAPSHOTCANADA@gm.com</u>. in Canada. In the subject line include VIBRATION BAC: \_\_\_\_\_ and last 8 of the VIN \_\_\_\_\_.
- 6: Attach any Pico files associated with the current vehicle and complaint to the e-mail and send it to TACSNAPSHOT@gm.com in the U.S. and <a href="mailto:TACSNAPSHOTCANADA@gm.com">TACSNAPSHOTCANADA@gm.com</a>. in Canada
- 7: Wait at least 1/2 hour after sending the e-mail to contact TAC and set up a TAC case. This will allow time for dealership server, internet service provider and G.M. firewall restrictions to get the e-mail to TAC.

ANY calls to TAC for vehicle level vibration that do not have a Pico file sent in to TAC or Pico files cannot be located because the BAC or VIN is missing from the subject line will be given a TAC case number for reference ONLY and will not be given any further recommendations until a Pico file is sent in.

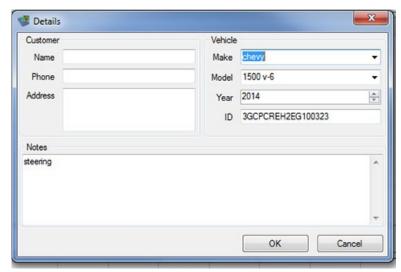
NOTE: This is for vehicle level vibration complaints, component level vibrations ie: blower motor, brake pulsation or shudder on turns type concerns do not require a Pico file.

To send the file follow the instructions below.

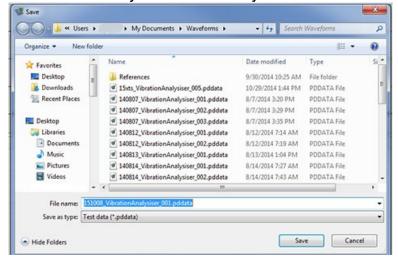
While the reviewed file is on the screen click File Save



The next box allows you to save the vehicle information as well as customer information and notes in the Notes box. This could be sensor location, sensor direction and even road surface name etc. Click Ok when you are done adding information.



Save the file to a location on the computer that you can find it. Default location will be waveforms. It is not necessary to rename the file but is critical that you remember where you saved it.

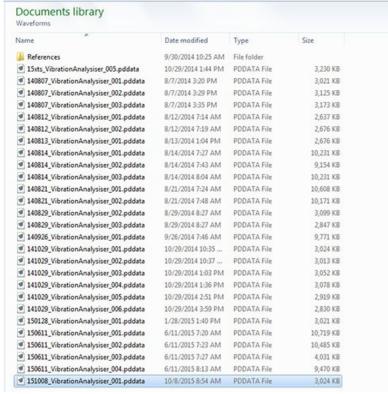


If you are emailing the file continue the following sequence.

Create an e-mail to TACSNAPSHOT@gm.com in the U.S. and TACSNAPSHOTCANADA@gm.com in Canada and in the subject line Put Vibration your BAC and last 8 of the vin as pictured below.



Click the attach button/icon in your email account and attach the file that you have saved. You can save more than one file or attach more than one file to the email.



The email should look similar to the following.



You can add any notes that you want to the email but is not required. Hit Send and we should have it here at technical assistance. Please follow this diagnostic or repair process thoroughly and complete each step. If the condition exhibited is resolved without completing every step, the remaining steps do not need to be performed.

